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Art Unit 2622   Customer No. 24498

REMARKS

Claims 1 and 3-9 presently remain in this application. To better point out and claim their invention and to better distinguish their invention over the art of record, applicants have amended claims 1, 3, 4, 6, 8 and 9 and have cancelled claim 2. In particular, applicants have amended claim 1 to include the features previously recited in now cancelled claim 2. The feature of inputting the cross-fading fading function inputting by a user is described on page 2, lines 9 to 13 and on page 5, line 1 — page 6, line 29 of applicants' specification. Applicants have amended claims 3, 4 and 6 to change the indefinite language of "can be" to *"are"*. Claim 8 has been amended to further define the graphical user interface. Lastly, Claim 9 has been amended by adding additional process steps.

Before proceeding to address the examiner's rejections, applicants will briefly summarize their invention to assist the examiner in better appreciating the differences between applicants' invention and the art of record. As recited in amended claim 1, applicants have invented a signal processing apparatus which has at least one cross-fading device for cross-fading signals from a plurality of inputs to an output. A control apparatus for controlling the cross-fading device comprises an input means by which a user enters (creates) a specific cross-fading function for each input signal which undergoes cross-fading. This function is written to a memory and, when needed, the function is read from the memory for a cross-fading operation. Applicants' invention enables managing a great number of inputs (sequences of digital information) at a reasonable effort.

35 U.S.C. 101 Rejection of Claim 9
35 U.S.C. 112 Rejection of Claim 9

Claim 9 stands rejected under 35 U.S.C. 112, second paragraph, as failing to distinctly point out and claim applicants' invention. In particular, the examiner contends that claim 9 provides for the use of cross fading, but does not set forth the steps in a method for doing so. In this regard, the examiner has rejected claim 9 under 35 U.S.C. 101 as not constituting a proper process claim.

Applicants have amended claim 9 to positively recite the steps of their claimed method. As now amended, claim 9 complies with 35 U.S.C. 112, second paragraph, and 35 U.S.C. 101. Withdrawal of these rejections is requested.

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35 U.S.C. 102(b) Rejection of Claims 1-9

Claims 1-9 stand rejected under 35 U.S.C. 102(b) as anticipated by U.S. patent 5,359,712 in the name of Jonathan R. Cohen et al. In this regard, the examiner contends that Cohen et al. teaches a device for transitioning between two sequences of digital information (movies). To accomplish cross-fading (transitioning) the two movies, an operator must select a fading function from a number of stored functions (See Col. 11, lines 32 to 44 of Cohen et al.). If desired, the operator can change some variables of the stored function (See Col. 12, lines 53 to 55). However, each change requires considerable effort.

With regard to applicants' recited in amended independent claims 1 and 9, the Cohen et al. patent does not teach the desirability of storing a changed cross-fading function. In this regard, Cohen et al. does not disclose more than two sequences of digital information. Thus, Cohen et al. does not incur any difficulty in selecting the cross-fading function for every change from one video program to the other.

In contrast, applicants' invention provides means for storing cross-fading functions created by a user, thereby giving the user the possibility to pre-select each one of a plurality of stored functions for one of the inputs, which function is then automatically used when the input is chosen for mixing. By comparison, Cohen et al can only manage two sequences of digital information stored in the system. The complete information, e.g., video and audio, undergoes cross-fading by the same function. Cohen et al. do not allow functions modified by the user to undergo writing to a store. Owing to that disadvantage, Cohen et al. thus lacks suitability for complex cross-fading operations of a greater number of inputs.

Applicants' invention of amended claim 1 comprises a plurality of digital inputs requiring composition to an output at the same time. Advantageously, an operator can assign each input can a different cross-fading function, which can be written to a store for access when needed. Thus, different inputs can be composed, with each input assigned its own cross-fading function. Since the cross-fading functions reside in a memory, an operator can use the functions repeatedly, thus easing the work of the operator. Applicants' invention also affords the ability to assign a defined function to the input and to run the cross-fading operation automatically upon choosing the input for mixing.

Based on the foregoing, applicants' invention recited in amended claim 1 patentably distinguishes over the Cohen et al. reference by virtue of the failure of that reference to teach each and every feature of applicants' invention, and in particular, the storage of cross-fading

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functions. Amended claim 9 likewise recites the feature of storing a user-entered cross-fading function and likewise patentably distinguishes over the Cohen et al. reference for the same reasons as amended claim 1. Applicants respectfully request withdrawal of the 35 U.S.C. 102(b) rejections of claims 1 and 9.
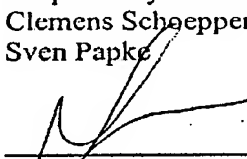
Claims 3-8 depend from claim 1 as amended, and incorporate by reference all of the features of their parent claim. Therefore, claims 3-8 patentably distinguish over the Cohen et al. patent for the same reasons as claim 1.

Conclusion

In view of the foregoing amendments to the claims and the accompany remarks, applicants solicit entry of this amendment and allowance of the claims. If, however, the Examiner believes such action cannot be taken, the Examiner is invited to contact the applicant's attorney at (609) 734-6820, so that a mutually convenient date and time for a telephonic interview may be scheduled.

Kindly charge the cost of the additional independent claim, as well as any other fees that may be due, to Deposit Account 07-0832.

Respectfully submitted,
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